

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
(Rev. 2-92) PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.: 16026/9182
09/8/3,077
SERIAL NO.: 09/312,172
APPLICANT: Craig E. Smith et al.
FILING DATE: May 14, 1999
GROUP: 1631

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT:

(Use several sheets if necessary)

J-918 U.S. PTO
09/813077
03/20/01

U.S. PATENT DOCUMENTS

EXAMINE R INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AM	BT	5,234,809	08/10/93	Boom et al.			
	BU	4,523,996	06/18/85	Charles et al.			
	BV	5,990,301	11/23/99	Colpan et al.			
	BW	5,155,018	10/13/92	Gillespie et al.			
	BX	5,783,686	07/21/98	Gonzalez, D.			
	BY	4,672,040	06/09/87	Josephson			
	BZ	5,075,430	12/24/91	Little, M.			
	CA	4,683,202	07/28/87	Mullis, K.			
	CB	5,808,041	09/15/98	Padhye et al.			
	CC	5,523,231	06/04/96	Reeve, M.			
	CD	5,681,946	10/28/97	Reeve, M.			
	CE	6,027,945	02/22/00	Smith et al.			
	CF	5,945,525	08/31/99	Uematsu et al.			
	CG	5,076,950	12/31/91	Ullman et al.			
	CH	4,695,393	09/22/87	Whitehead et al.			
	CI	5,610,274	03/11/97	Wong, Y.			
	CJ	5,734,020	03/31/98	Wong, Y.			

FOREIGN PATENT DOCUMENTS

EXAMINE R INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AM	CK	CA 2223821	06/06/96	Canada			
	CL	GB 2 074 892 A	11/11/81	Great Britain			
	CM	EP 0757106A2	02/05/97	Europe			
	CN	JP 9327290	12/22/97	Japan			
	CO	JP 9327291	12/22/97	Japan			
	CP	WO 98/31840	07/23/98	PCT			
	CQ	WO 96/36706	11/21/96	PCT			
	CR	WO 95/21179	08/10/95	PCT			
	CS	WO 96/16186	05/30/96	PCT			
	CT	WO 95/06652	03/09/95	PCT			
	CU	WO 98/31461	07/23/98	PCT			

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Andin Massey

DATE CONSIDERED 1-22-04

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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~~09/12,172~~ 09/813,077

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1631

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	CV	Ausubel et al., <i>Current Protocols in Molecular Biology</i>, Ch. 2 (DNA), Ch. 4 (RNA).
AM	CW	Bitner, et al., "Use of MagnaSil Paramagnetic Particles for Plasmid Purification, PCT Cleanup, and Purification of Dideoxy and Big Dye DNA Sequencing Reaction", <i>Proceedings of SPIE-Int. Soc. Opt. Eng.</i> (2000) Vol. 3926, No. 3926 pp 126-33.
	CX	Boom, et al., "Rapid and Simple Method for Purification of Nucleic Acids", <i>J. Clin. Microbiol.</i> , (1990) 28:495-503.
	CY	Brown, et al. "Anion-Cation Separations on a Mixed Bed Alumina-Silica Column", <i>J. Chromatog.</i> (1989) Vol. 466, No. 1 + index pp. 291-300.
	CZ	Kirk-Othmer, Encyclopedia of Chemical Technology, (1997) Vol. 21, 4th ed., 1997, pp. 1021-1022.
	DA	Marko et al., "A Procedure for the Large-Scale Isolation of Highly Purified Plasmid DNA Using Alkaline Extraction and Binding to Glass Powder", <i>Anal. Biochem.</i> (1982) 121:382-387.
	DB	Promega, Technical Bulletin No. 202 "Wizard @ Plus Series 9600™ DNA Purification System, (Promega Corp.) (9/98).
	DC	Promega, Technical Bulletin No. 225 "Wizard @ Plus SV Minipreps DNA Purification System, (Promega Corp.) (9/99).
	DD	Promega, Technical Bulletin No. 259 "Wizard @ PureFfection Plasmid DNA Purification System, (Promega Corp.) (9/99).
	DE	QuantiBlot Human DNA Quantitation System, PE Applied Biosystems, 2/5/96, page 1-5 (http://www.pebio.com/fo/773503/773503.html).
	DF	Sambrook, et al., <i>Molecular Cloning a Laboratory Manual</i> , 2nd ed. pp. 1.25-1.28. (1989).
V	DG	Vogelstein et al., "Preparative and Analytical Purification of DNA from Agarose", <i>Proc. Natl. Acad. Sci.</i> (1979) Vol. 76, No. 2:615-619.

No date

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Adin Mascher

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1-22-04

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AM	AA	4,233,169	11/11/80	Beall et al.			
	AB	4,297,337	10/27/81	Mansfield et al.			
	AC	4,395,271	07/26/83	Beall et al.			
	AD	4,699,717	10/13/87	Riesner et al.			
	AE	4,767,670	08/30/88	Cox et al.			
	AF	5,057,426	10/15/91	Henco et al.			
	AG	5,316,680	05/31/94	Frechet et al.			
	AH	5,346,994	09/13/94	Chomczynski			
	AI	5,389,449	02/14/95	Afeyan et al.			
	AJ	5,395,498	03/07/95	Gombinsky et al.			
	AK	5,582,988	12/10/96	Backus et al.			
	AL	5,652,348	07/29/97	Burton et al.			
	AM	5,658,548	08/19/97	Padhye et al.			
	AN	5,585,236	12/17/96	Bonn et al.			
	AO	5,660,984	08/26/97	Davis et al.			
	AP	5,728,822	03/17/98	Macfarlane			
	AQ	5,747,663	05/05/98	Colpan et al.			

U.S. PTO
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FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AM	AR	DE 43 07 262 A1					Yes
	AS	WO 83/03363					
	AT	WO 95/06652					
	AU	WO 97/29825					
	AV	WO 98/31840					

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AM	AW	Bischoff, Rainer and Larry W. McLaughlin. <u>Nucleic Acid Resolution By Mixed-Mode Chromatography</u> . <i>Journal of Chromatography</i> (1984) 296:329-337.
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Andin Monahan

1-22-04

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SERIAL NO.: 09/312,173

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GROUP: 1744

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AM	AX	Bischoff, Rainer and Larry W. McLaughlin. <u>Chemically Synthesized Hydrophobic Anion-Exchange High-Performance Liquid Chromatography Supports Used for Oligonucleotide Resolution By Mixed Mode Chromatography. Journal of Chromatography. (1983) 270:117-126.</u>
	AY	Cotton, M. et al. 1994, <i>Gene Therapy</i> 1:239-246.
	AZ	Crowther, Jonathan B. <u>High-Performance Liquid Chromatographic Separation of Oligonucleotides and Other Nucleic Acid Constituents on Multifunctional Stationary Phases. Journal of Chromatography (1983) 282:619-628.</u>
	BA	Edwardson P.A.D., et al. <u>Seperation and purification of oligonucleotides using a new bonded-phase packing material. Journal of Chromatography (1991) 545:79-89.</u>
	BB	Floyd, Thomas R. et al., <u>Mixed-Mode Hydrophobic Ion Exchange for the Seperation of Oligonucleotides and DNA Fragments Using HPLC. Analytical Biochemistry (1986) 154:570-577.</u>
	BC	F. Ausubel et al., eds., <u>Current Protocols in Molecular Biology</u> , Wiley-Interscience, New York (1993).
	BD	Gjerde, Douglas T. <u>Ion Chromatography. Dr. Alfred Hothig Verlag Heidelberg (1987) 2nd Edition.</u> New York.
	BE	Goldsborough, Mindy D. <u>High Purity Plasmid DNA from Anion Exchange Chromatography. Focus (1998) Volume 20 Number 3.</u>
	BF	Hirabayashi, Jun, <u>Applied slalom chromatography Improved DNA seperation by the use of columns developed for reversed-phase chromatography. Journal of Chromatography (1996) 722:135-142.</u>
	BG	Kirk-Othmer Encyclopedia of Chemical Technology, Vol. 21, Mary Howe-Grant, ed., John Wiley & Sons, pub. 1997, pp. 1020-1023.
	BH	Little, Edward L. Mark S. Jeansonne, and Joe P. Foley. <u>Sequential Multimodal Elution for Pseudomultidimensional Liquid Chromatography on a Single Column. Anal. Chem (1991) 63:33-44.</u>
	BI	Maa, Yih-fen et al. <u>Rapid high-performance liquid chromatography of nucleic acids with polystyrene-based micropellicular anion exchangers. Journal of Chromatography (1990) 508:61-73</u>
	BJ	Machrey-Nagel homepage on the Internet on 6/12/98, at http://www.machrey-nagel.com .
	BK	McLaughlin L.M., <i>Chem Rev</i> (1989) 89: 309-319, at p. 309.

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John Marshall

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

AM	BL	Molecular Cloning, ed. By Sambrook et al. (1989), pub. By Cold Spring Harbor Press, pp. 1.42-1.50.
	BM	Morrison, David C. 1987, <i>Ann. Rev. Med.</i> 38:417-32.
	BN	Patent '680; Little E.L. et al., <i>Anal. Chem.</i> (1991) 63: 33.
	BO	Rassi Ziad El, and Csaba Horvath. Tandem Columns and Mixed-Bed Columns in <u>High-Performance Liquid Chromatography of Proteins</u> . <i>Journal of Chromotography</i> . (1986) 359:255-264.
	BP	W. Jost, et al. <i>J. Chromatog.</i> 185 (1979) 403-412.
	BQ	Waterborg, Jakob H. and Anthony J. Robertson. <u>Efficient large-scale purification of restriction fragments by solute-displacement ion-exchange HPLC</u> . <i>Nucleic Acids Research</i> (1993) Vol. 21, No. 12:2913-2915.
	BR	Weber, M. et al. 1995, <i>BioTechniques</i> 19(6):930-939.
	BS	Wheatley J.B., <i>J. Chromatogr.</i> (1992) 603: 273.

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Andru Monaster

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Complete if Known

Application Number	09/312,172 09/13,077
Filing Date	May 14, 1999
First Named Inventor	Craig E. Smith
Group Art Unit	1631
Examiner Name	Ardin H. Marschel
Attorney Docket Number	16026/9182

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Sheet	1	of	1
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Attorney Docket Number	16026/9182
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Andin Marschke

1-22-04

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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